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Abstract of the Disclosure

COMPOSITIONS AND METHODS FOR STIMULATING  
MEGAKARYOCYTE GROWTH AND DIFFERENTIATION

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Disclosed are novel proteins, referred to as  
megakaryocyte growth and development factors (MGDFs;  
also generally referred to as Mpl ligands), that have a  
10 biological activity of stimulating the growth of  
megakaryocytes and augmenting the differentiation or  
maturation of megakaryocytes, ultimately to result in  
the production of platelets. MGDF derivatives  
comprising MGDF molecules attached to water soluble  
15 polymers, such as polyethylene glycol, are also  
disclosed, along with methods for their preparation.  
Also disclosed are processes for obtaining the MGDFs in  
homogeneous form from natural sources and producing them  
by recombinant genetic engineering techniques from  
20 mammals, including humans.